

AMENDMENTS TO THE CLAIMS

Please amend the present application as follows:

Claims

1-20. (Canceled)

21. (New) An imaging device comprising:

a color filter array configured to generate a first set of red-green-blue (RGB) values from light incident upon the color filter array;

a first analog processing and analog-to-digital (A-D) conversion unit configured to receive the first set of RGB values and generate in response thereto, a set of digital RGB signals;

a color sensor that is independent of the color filter array, the color sensor configured to generate a second set of RGB values from light incident upon the color sensor;

a second analog processing and A-D conversion unit configured to receive the second set of RGB values and generate in response thereto, a set of average RGB signals; and

a white balance unit configured to generate white balance information from the set of average RGB signals generated by the second analog processing and A-D conversion unit.

22. (New) The imaging device of claim 21, further comprising:

a color interpolation unit configured in part, to receive the set of average RGB signals generated by the second analog processing and A-D conversion unit and forward the set of average RGB signals to the white balance unit without further processing, thereby eliminating a processing time in the color interpolation unit.

23. (New) The imaging device of claim 22, wherein the set of average RGB signals is a digital set of average RGB signals.

24. (New) An imaging device comprising:

a first image processing path comprising:

a color filter array configured to generate a first set of red-green-blue (RGB) values from light incident upon the color filter array; and
a first analog processing and analog-to-digital (A-D) conversion unit configured to receive the first set of RGB values and generate in response thereto, a set of RGB signals;
a second image processing path that is parallel to, and independent of, the first image processing path, the second image processing path comprising:
a color sensor that is independent of the color filter array, the color sensor configured to generate a second set of RGB values from light incident upon the color sensor; and
a second analog processing and analog-to-digital (A-D) conversion unit configured to receive the second set of RGB values and generate in response thereto, a set of average RGB values; and
a common image processing path comprising:
a white balance unit configured to generate white balance information from the set of average RGB values generated by the second analog processing and A-D conversion unit; and
a color interpolation unit configured to receive the set of average RGB values generated by the second analog processing and A-D conversion unit and forward the set of average RGB values to the white balance unit without further processing, thereby eliminating a processing time in the color interpolation unit.

25. (New) A method of imaging, the method comprising:
providing a color filter array;
providing a color sensor that is independent of the color filter array;
generating a first set of red-green-blue (RGB) values from light incident upon the color filter array;
converting the first set of RGB values into a set of digital RGB signals;
generating a second set of RGB values from light incident upon the color sensor, the second set of RGB values being independent of the first set of RGB values;
converting the second set of RGB values into a set of average RGB signals;
providing a color interpolation unit;

propagating the set of average RGB signals through the color interpretation unit without processing in the color interpretation unit, thereby eliminating a processing time in the color interpolation unit;

providing a white balance unit; and

receiving in the white balance unit, the set of average RGB signals from the color interpolation unit; and

generating in the white balance unit, white balance information from the set of average RGB signals.